**To:** Lewis Linker[LLinker@chesapeakebay.net]
**From:** Batiuk, Rich
**Sent:** Thur 7/10/2014 6:58:48 PM
**Subject:** RE: CMAQ Scenarios for Chesapeake Bay Program
**MAIL_RECEIVED:** Thur 7/10/2014 6:58:00 PM

Lew-

Thanks for your follow throughs with Norm. Please keep Norm focused on anticipating the change in the ozone standard. This is going to happen and our next round of scenarios should reflect this.

Thanks, Rich

Rich Batiuk

Associate Director for Science, Analysis and Implementation

Chesapeake Bay Program Office

U.S. Environmental Protection Agency

410 Severn Avenue

Annapolis, Maryland 21403

410-267-5731 Work

443-223-7823 Mobile

batiuk.richard@epa.gov

www.chesapeakebay.net

**From:** Lewis Linker [mailto:LLinker@chesapeakebay.net]
**Sent:** Wednesday, July 09, 2014 4:39 PM
**To:** Lewis Linker; Possiel, Norm; Dennis, Robin
**Cc:** Gary Shenk; Batiuk, Rich
**Subject:** RE: CMAQ Scenarios for Chesapeake Bay Program

Hi Norm:

We're looking forward to getting your CMAQ Scenarios of atmospheric deposition of nitrogen to the Chesapeake watershed and tidal Bay, but a chat with Robin today raised a few questions in my mind. For the 2002 and 2011 CMAQ scenarios, I would guess that the NOx emissions input used would be the actual measured estimates. However, for the 2018 and 2025 scenarios it would be good to know what ozone standards will be projected. When we did the 2020 Allocation Air CMAQ Scenario for the Chesapeake TMDL we used a CMAQ scenario that was run in 2007 when the ozone standard was 0.080 ppm. Now the ozone standard is 0.075 ppm, and this, of course, would be reflected in the 2011 Scenario your doing now.

Looking forward, a good guess of where the ozone standard will be in 2025 would not be 0.075 ppm. A better guess would be something like 0.070 ppm or lower. So the question is, "What assumption will we be making for the 2025 CMAQ Scenario?" (and the 2018 scenario for that matter).

Thanks for your response Norm. Also, this is reminder that we'd like to have you or Robin give a short presentation (15 minutes) to introduce the new CMAQ scenarios during the Modeling Workgroup's September 2014 conference call and then a full presentation of the CMAQ work and future plans for the 2005-2011 continuous 2005-2012 at the October Quarterly Review.

All the best to you Norm,

- Lew

**From:** Lewis Linker
**Sent:** Wednesday, June 25, 2014 2:39 PM
**To:** 'Possiel, Norm'; Dennis, Robin
**Cc:** Gary Shenk; Rich Batiuk
**Subject:** RE: CMAQ Scenarios for Chesapeake Bay Program

Great, thanks for the update Norm. The CMAQ updates are important to us and we appreciate your help. Based on your timeline I think we should have a short presentation (15 minutes) to introduce the new scenarios during the Modeling Workgroup's September 2014 conference call and then a full presentation of the CMAQ work and future plans for the 2005-2011 continuous 2005-2012 at the October Quarterly Review. How does that sound?

All the best,

- Lew

**From:** Possiel, Norm [mailto:Possiel.Norm@epa.gov]
**Sent:** Wednesday, June 25, 2014 1:49 PM
**To:** Lewis Linker; Dennis, Robin
**Cc:** Gary Shenk; Rich Batiuk
**Subject:** RE: CMAQ Scenarios for Chesapeake Bay Program

Lew,

We won't have the modeling results for these scenarios by July 22/23. The 2011 CMAQ run is in-progress and should finish by the end of next week. The emissions are ready for 2018 and 2025, but the emissions for 2002 are still being developed. CMAQ runs for 2018, 2025, and 2002 will be made sequentially starting after the 2011 run is completed. We expect to be able to provide the deposition outputs for all cases by the end of August.

Norm

**From:** Lewis Linker [mailto:LLinker@chesapeakebay.net]
**Sent:** Wednesday, June 25, 2014 1:30 PM
**To:** Dennis, Robin; Possiel, Norm
**Cc:** Gary Shenk; Batiuk, Rich
**Subject:** RE: CMAQ Scenarios for Chesapeake Bay Program

Robin and Norm:

We have a Modeling Quarterly Review Meeting coming up the July 22-23. Would this be a good time to get the first 3 scenarios of 2010, 2017, and 2025 using the bidirectional ammonia CMAQ simulation and a 2002 emissions data base as described below? It would be timely to get this new information in front of the Chesapeake Bay Program managers & Modeling Workgroup.

Thanks!

- Lew

**From:** Lewis Linker
**Sent:** Thursday, April 10, 2014 6:47 PM
**To:** 'Dennis, Robin'; Norm Possiel (possiel.norm@epa.gov)
**Cc:** Gary Shenk; Rich Batiuk
**Subject:** CMAQ Scenarions for Chesapeake Bay Program

Hi Robin:

It was good chatting with you today. I understand from our talk that Norm is preparing to provide to the Chesapeake Bay Program new CMAQ scenarios that use the bidirectional NH4 simulation. The new scenarios will be of **2011** (which includes the 2010 CAIR implementation) **2017** (which includes implementation of the Tier 3 Fuel Rule) and **2025** (the year when all CBP implementation for the TMDL is to be completed). The three scenarios will all use 2002 emissions. Norm, you should know that getting the three above scenarios to the CBP by the July/August 2014 timeframe will be fine.

Also Robin, you had described a series of scenarios coming after Norm's three scenarios. The scenarios would use the latest version of the CMAQ bidirectional ammonia and would be for 2005 to 2012 with each of the year having its own separate 2005 to 2012 emission and meteorological data sets. A 2025 Scenario will be run on the latest CMAQ version as well. I think you had said too that there would be some provisions made to be able to see the differences with the 2002 emission data set we used for the CMAQ scenarios developed for the 2010 TMDL.

Please let me know if I’m missing anything and, as always, thank for your help Robin and Norm.

Best,

- Lew